OIPE IAP54
MAR 20 2006
PATENT & TRADEMARK OFFICE

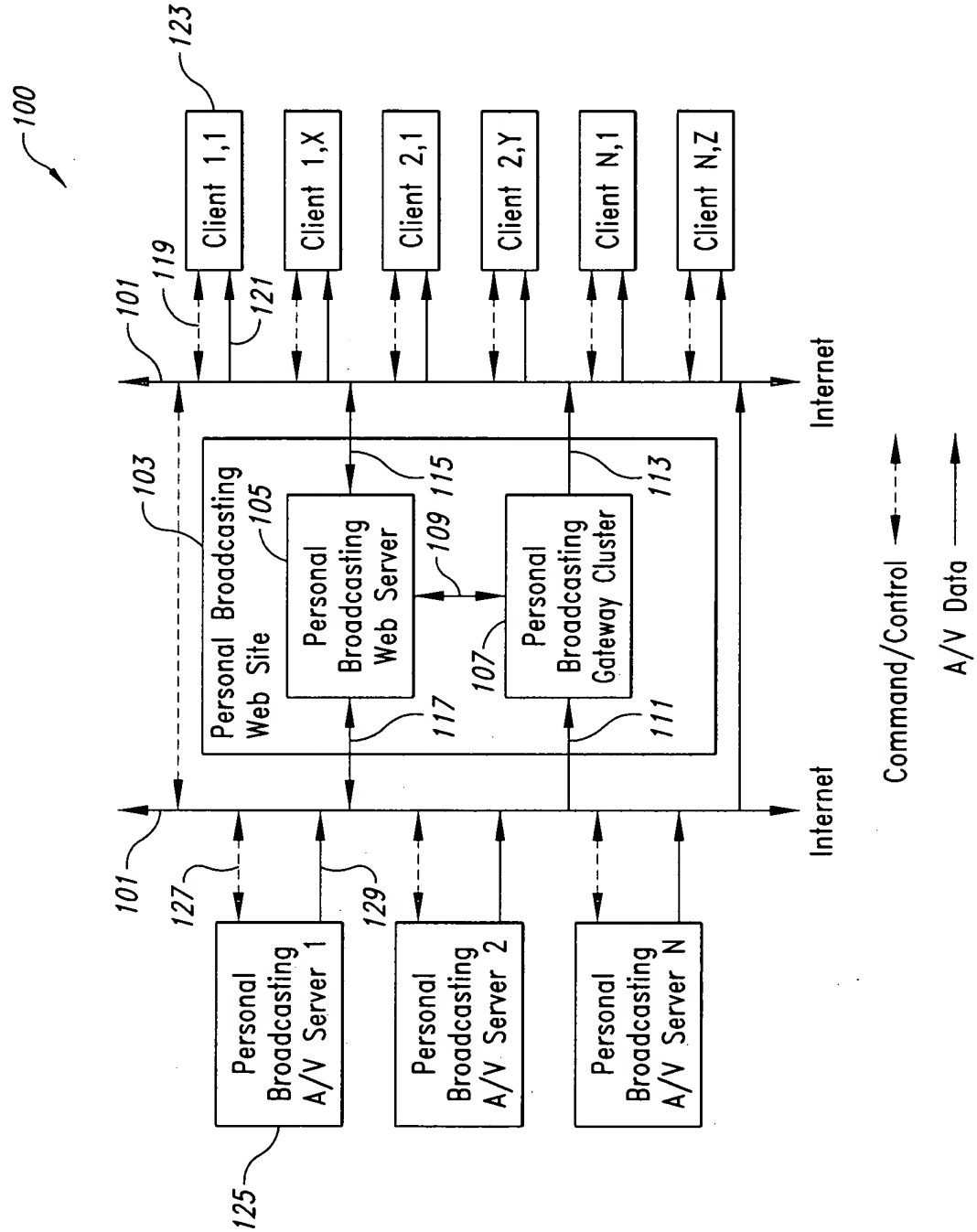

FIG. 1

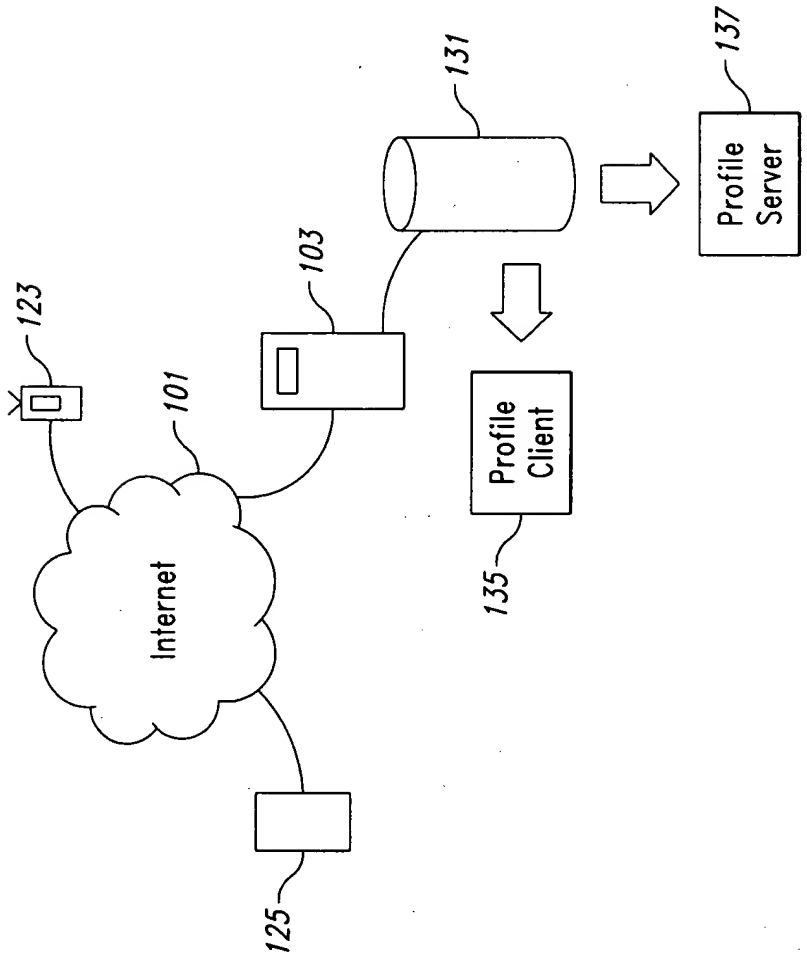
123
101
103
131
137
Profile Server
Profile Client
135
Internet
125

FIG. 1A

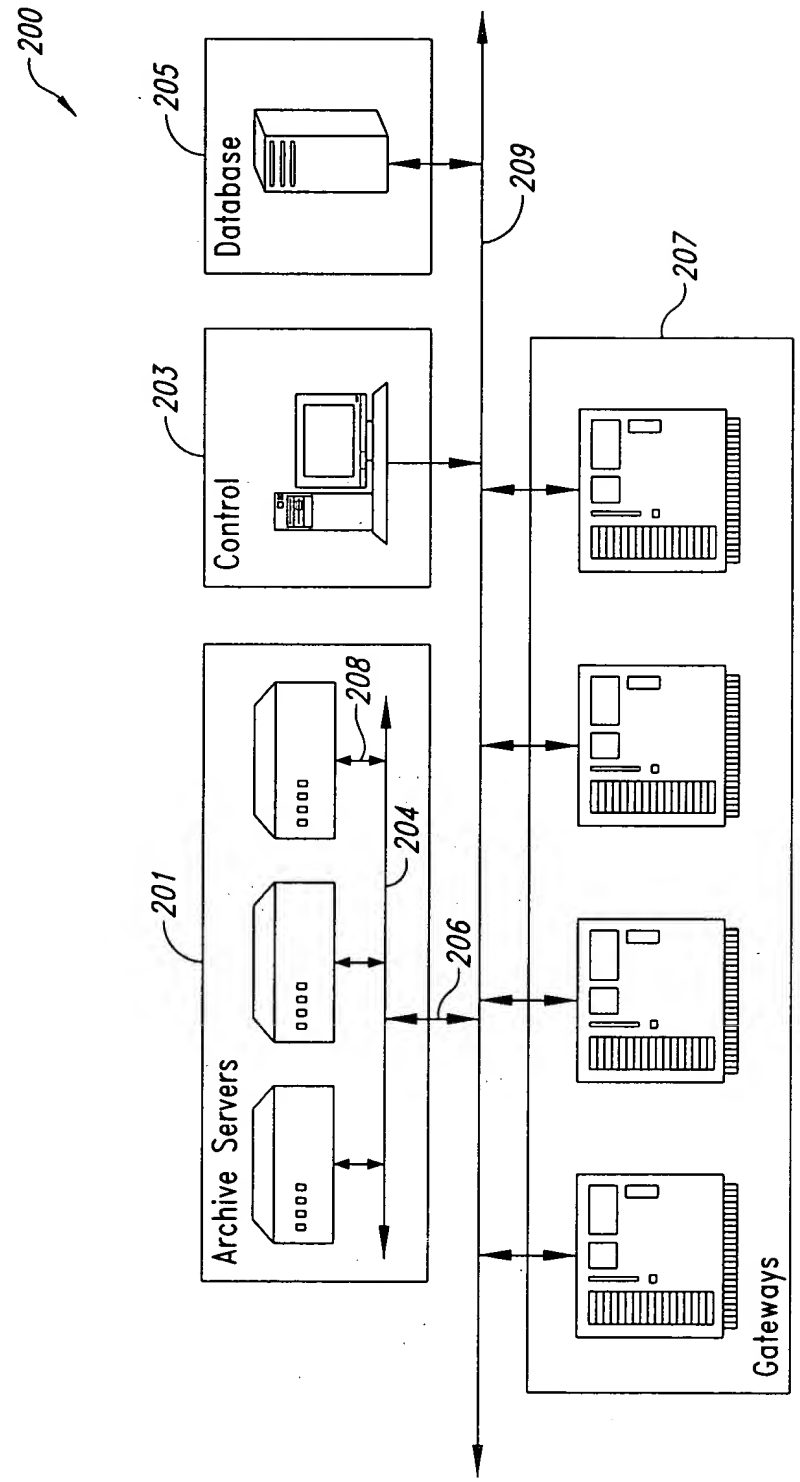
200
205
Database
209
207
203
Control
208
204
201
206
Archive Servers
Gateways

FIG. 2

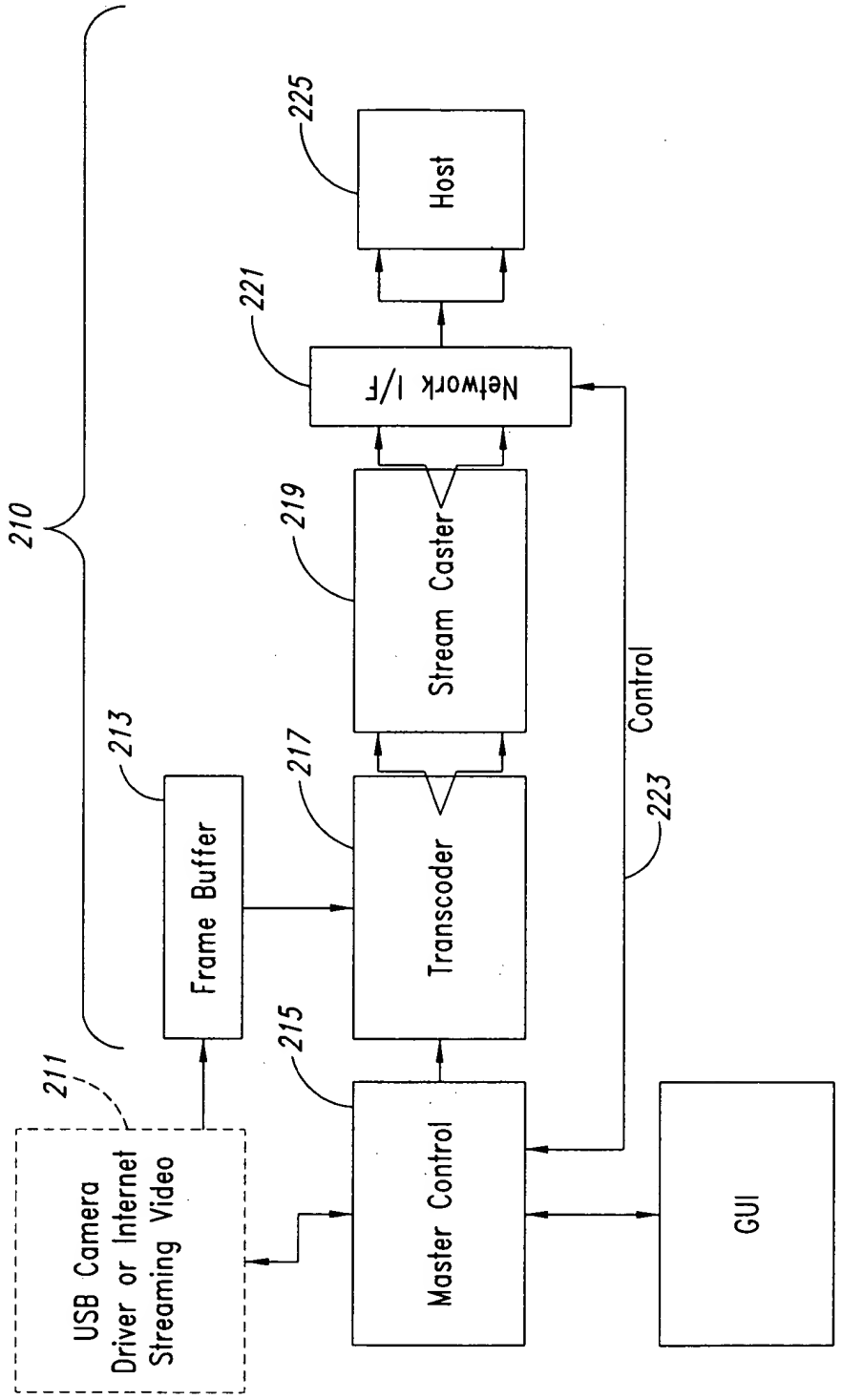
210
211
USB Camera Driver or Internet Streaming Video
213
Frame Buffer
215
Master Control
217
Transcoder
219
Stream Caster
221
Network I/F
223
Control
225
Host
GUI

FIG. 2A

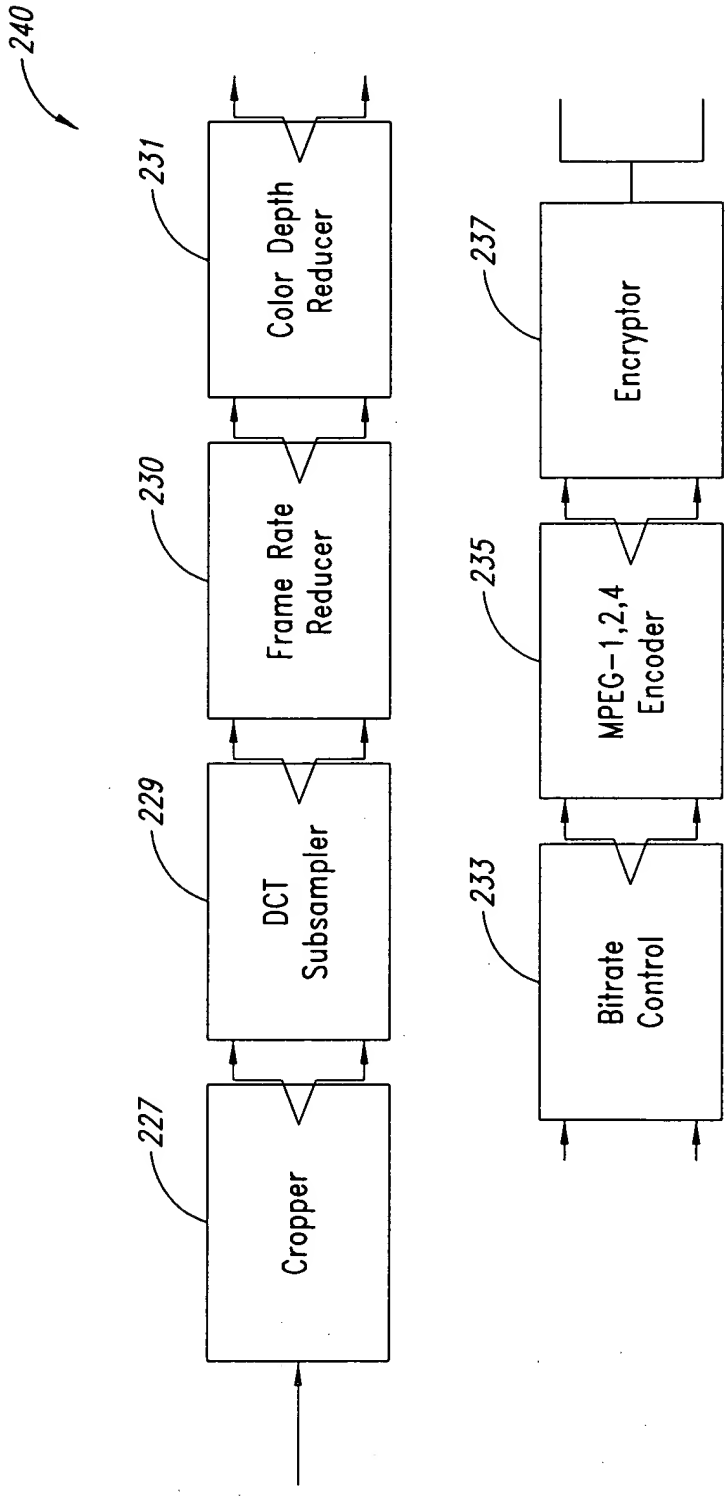
240
231
Color Depth Reducer
230
Frame Rate Reducer
229
DCT Subsampler
227
Cropper
237
Encryptor
235
MPEG-1,2,4 Encoder
233
Bitrate Control

FIG. 2B

STREAM FLOW OPTION A

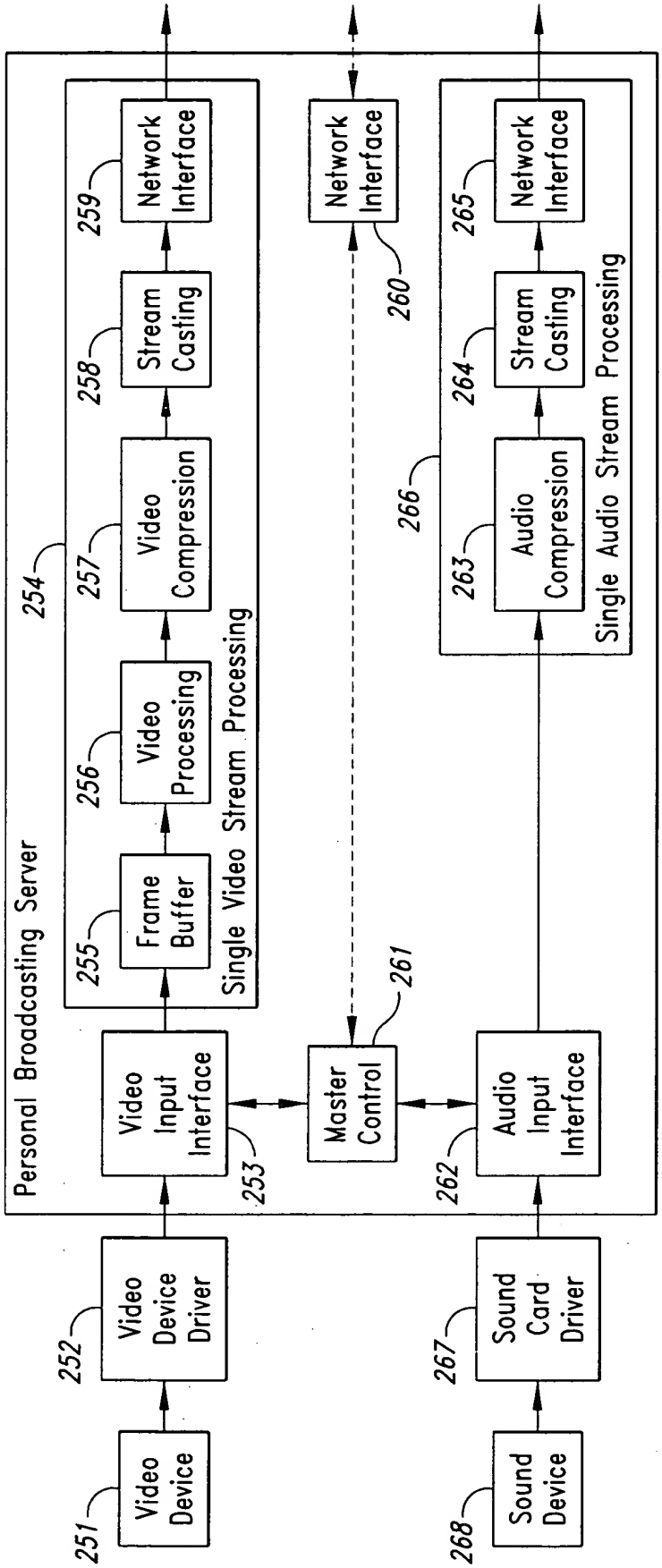

FIG. 2C

STREAM FLOW OPTION B

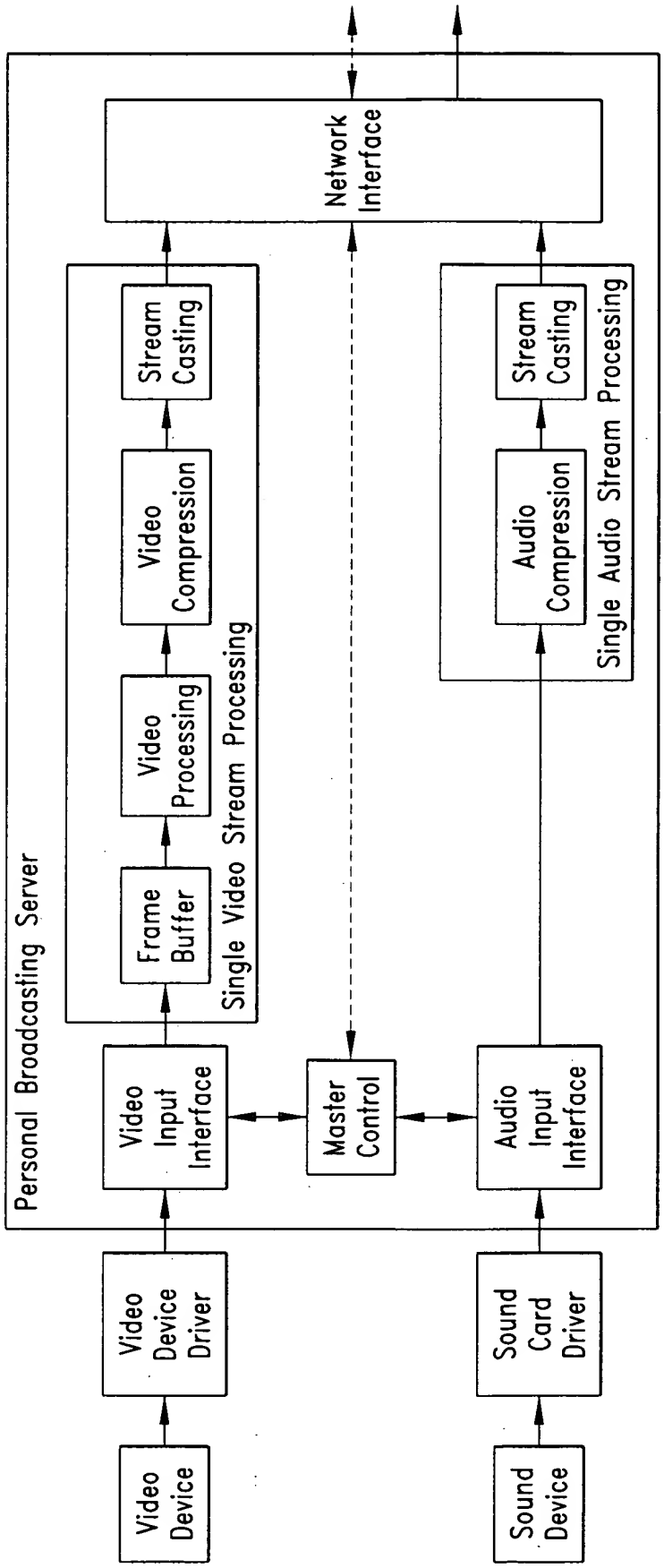

FIG. 2D

STREAM FLOW OPTION C

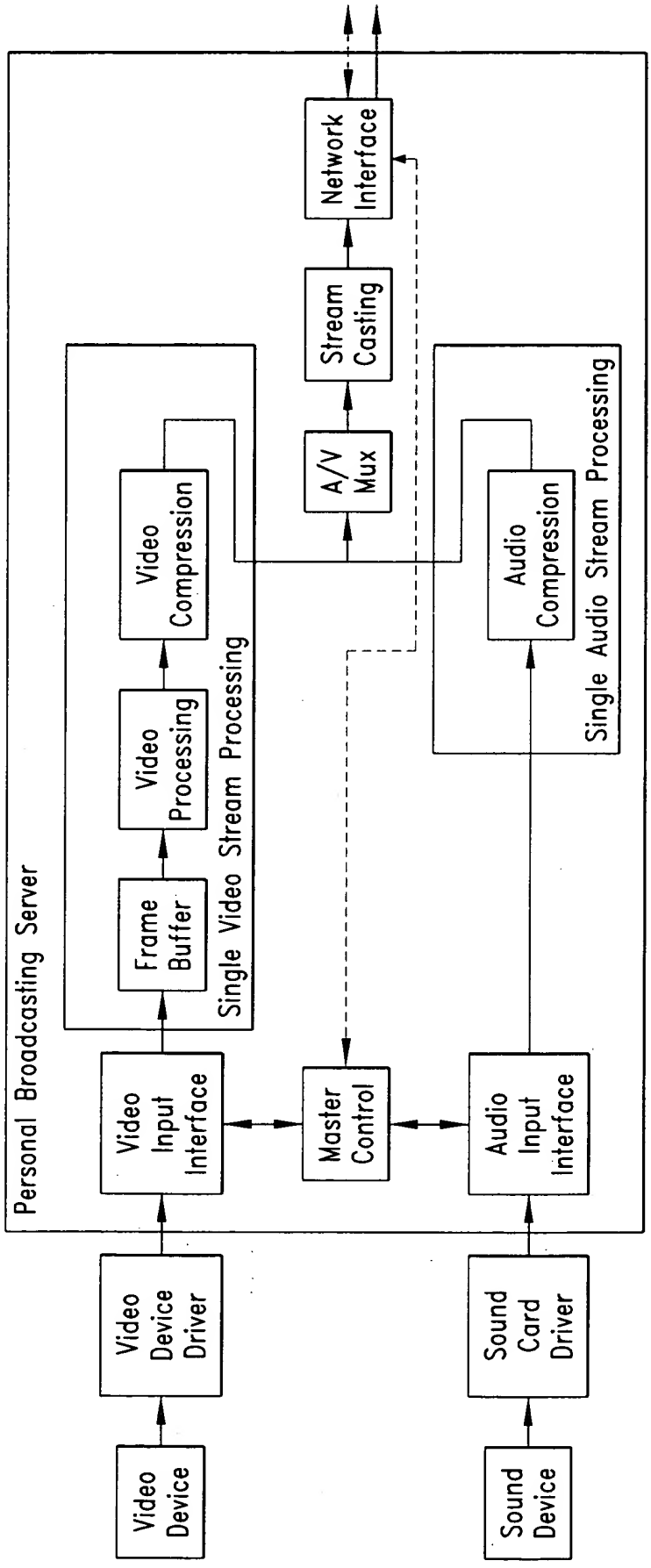

FIG. 2E

PERSONAL BROADCASTING PROCESS

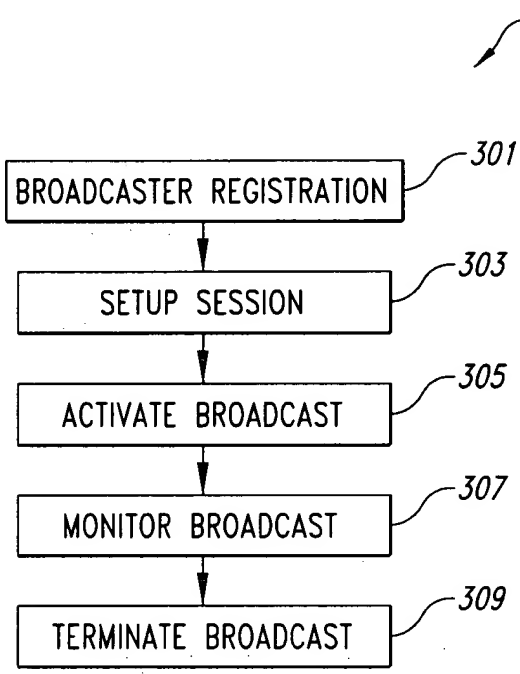

FIG. 3

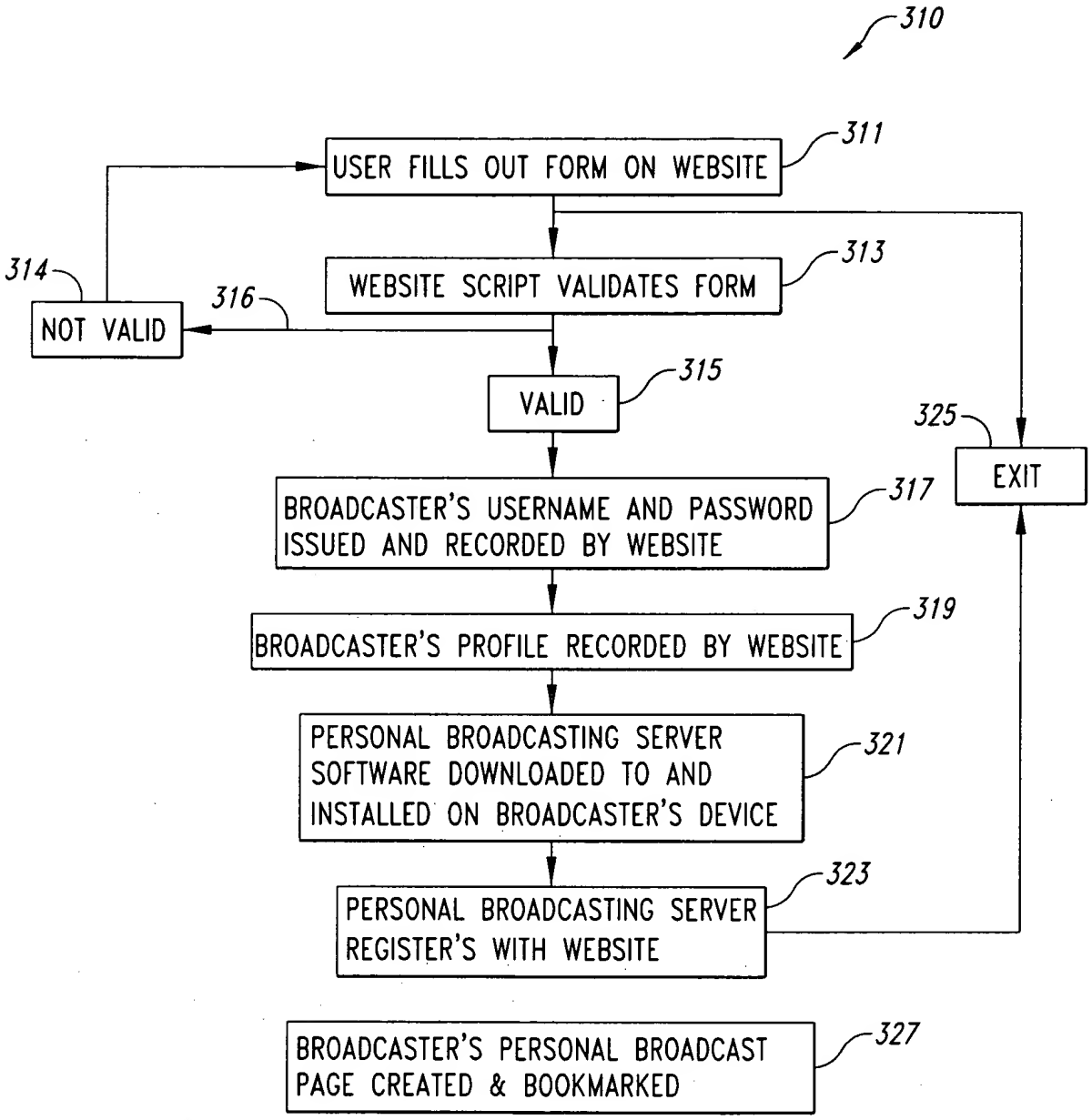
BROADCASTER REGISTRATION
310
USER FILLS OUT FORM ON WEBSITE
311
WEBSITE SCRIPT VALIDATES FORM
313
314
NOT VALID
316
VALID
315
325
EXIT
BROADCASTER'S USERNAME AND PASSWORD ISSUED AND RECORDED BY WEBSITE
317
BROADCASTER'S PROFILE RECORDED BY WEBSITE
319
PERSONAL BROADCASTING SERVER SOFTWARE DOWNLOADED TO AND INSTALLED ON BROADCASTER'S DEVICE
321
PERSONAL BROADCASTING SERVER REGISTER'S WITH WEBSITE
323
BROADCASTER'S PERSONAL BROADCAST PAGE CREATED & BOOKMARKED
327

FIG. 3A

SETUP BROADCASTING SESSION

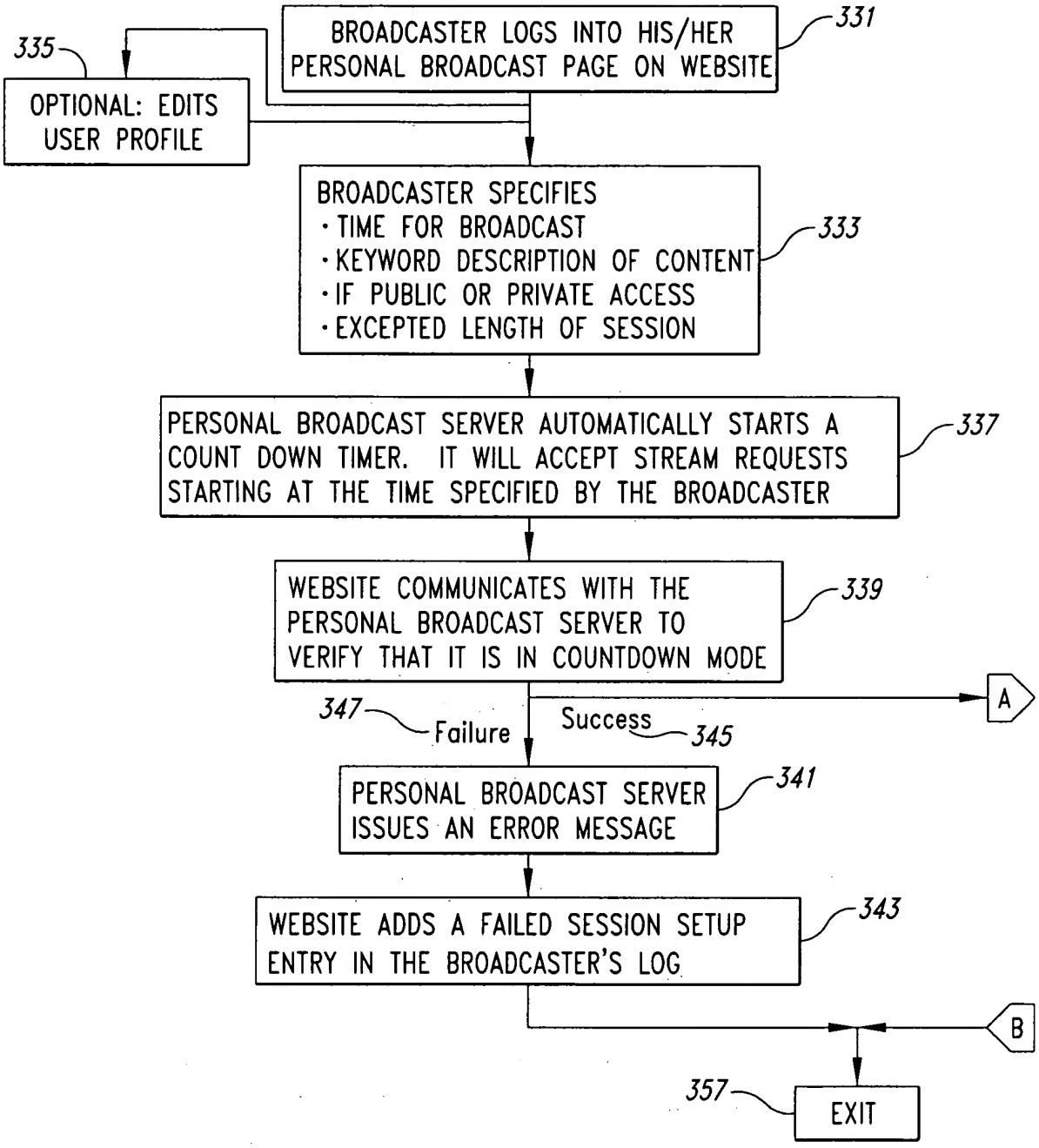

FIG. 3B-1

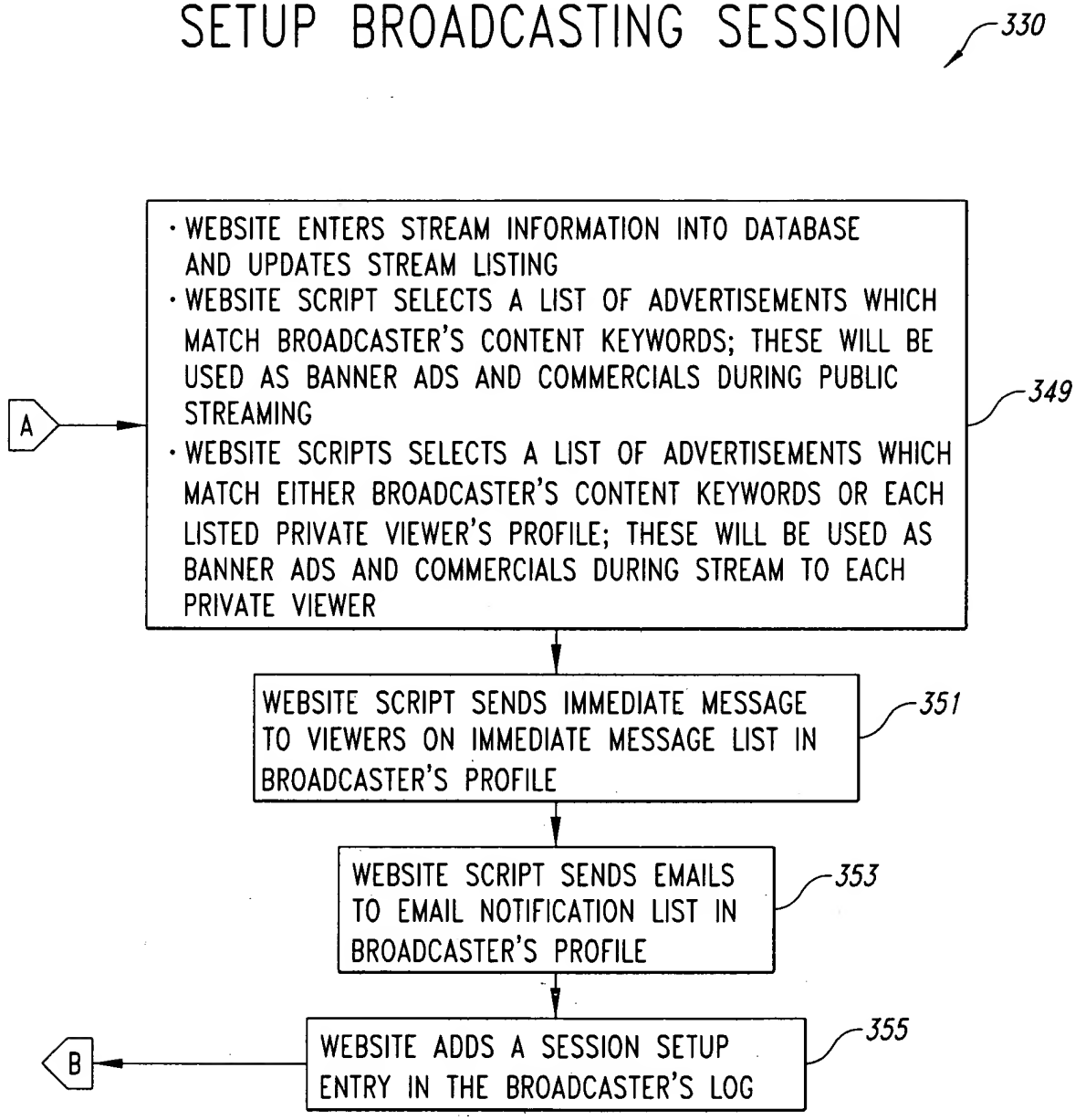
SETUP BROADCASTING SESSION
330
A
• WEBSITE ENTERS STREAM INFORMATION INTO DATABASE AND UPDATES STREAM LISTING
• WEBSITE SCRIPT SELECTS A LIST OF ADVERTISEMENTS WHICH MATCH BROADCASTER'S CONTENT KEYWORDS; THESE WILL BE USED AS BANNER ADS AND COMMERCIALS DURING PUBLIC STREAMING
• WEBSITE SCRIPTS SELECTS A LIST OF ADVERTISEMENTS WHICH MATCH EITHER BROADCASTER'S CONTENT KEYWORDS OR EACH LISTED PRIVATE VIEWER'S PROFILE; THESE WILL BE USED AS BANNER ADS AND COMMERCIALS DURING STREAM TO EACH PRIVATE VIEWER
349
WEBSITE SCRIPT SENDS IMMEDIATE MESSAGE TO VIEWERS ON IMMEDIATE MESSAGE LIST IN BROADCASTER'S PROFILE
351
WEBSITE SCRIPT SENDS EMAILS TO EMAIL NOTIFICATION LIST IN BROADCASTER'S PROFILE
353
WEBSITE ADDS A SESSION SETUP ENTRY IN THE BROADCASTER'S LOG
355
B

FIG. 3B-2

ACTIVATE BROADCAST

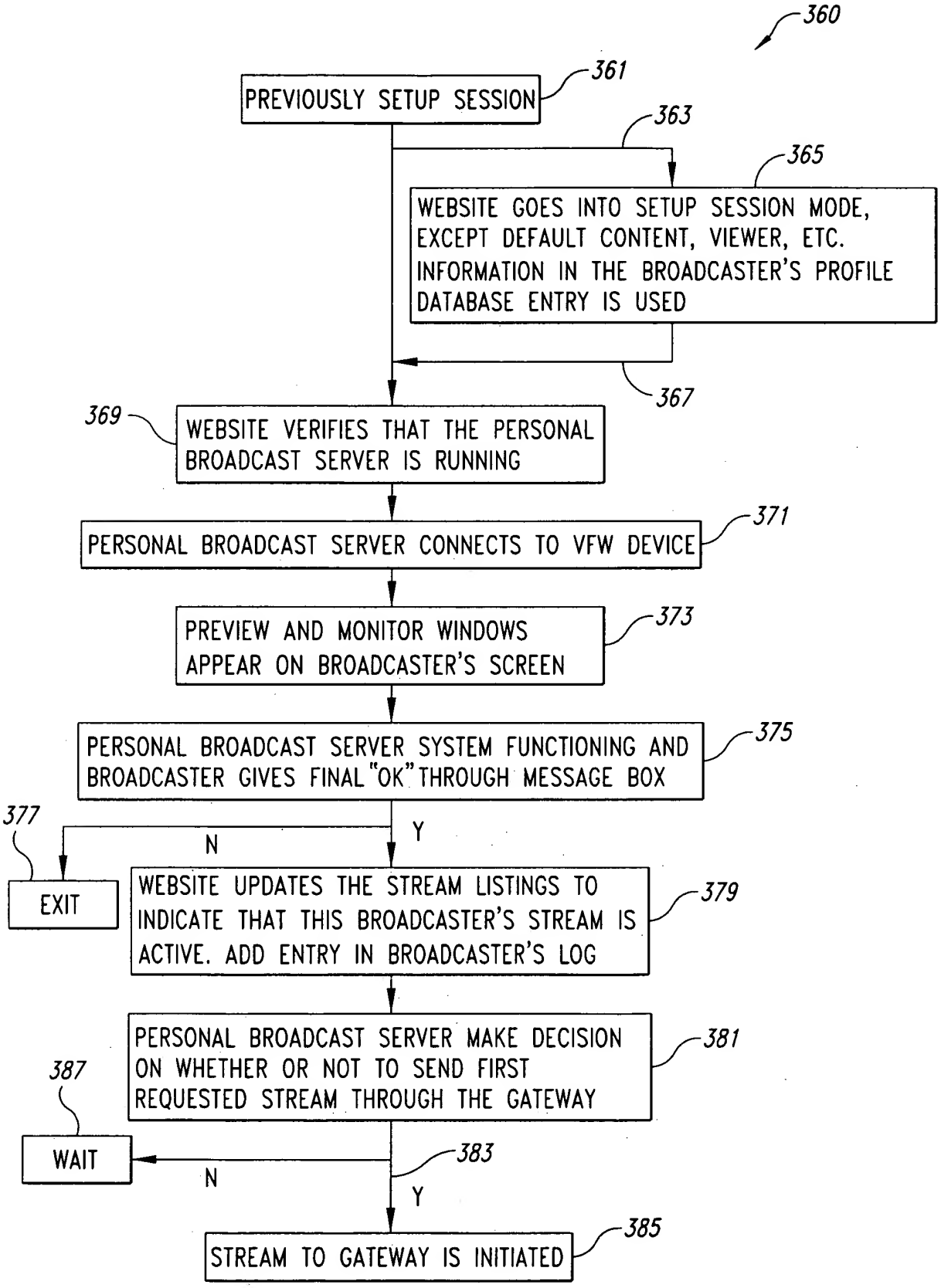

FIG. 3C

TERMINATE BROADCAST

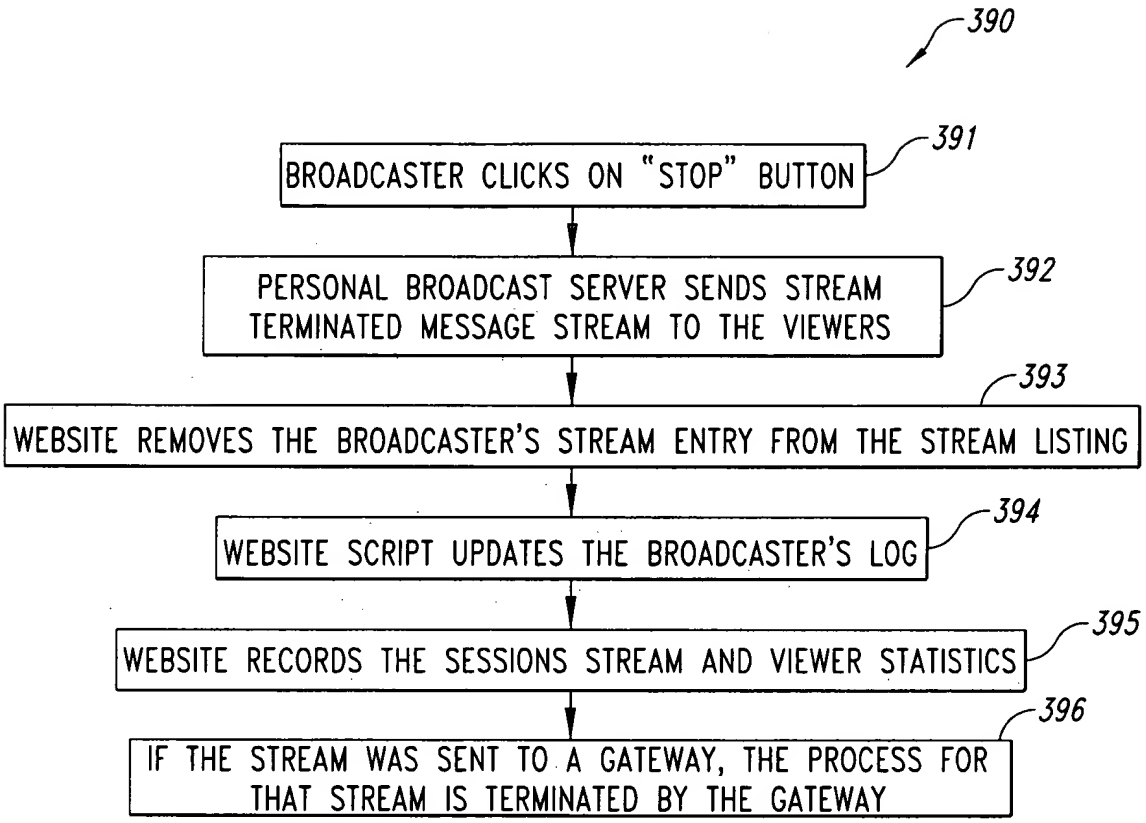

FIG. 3D

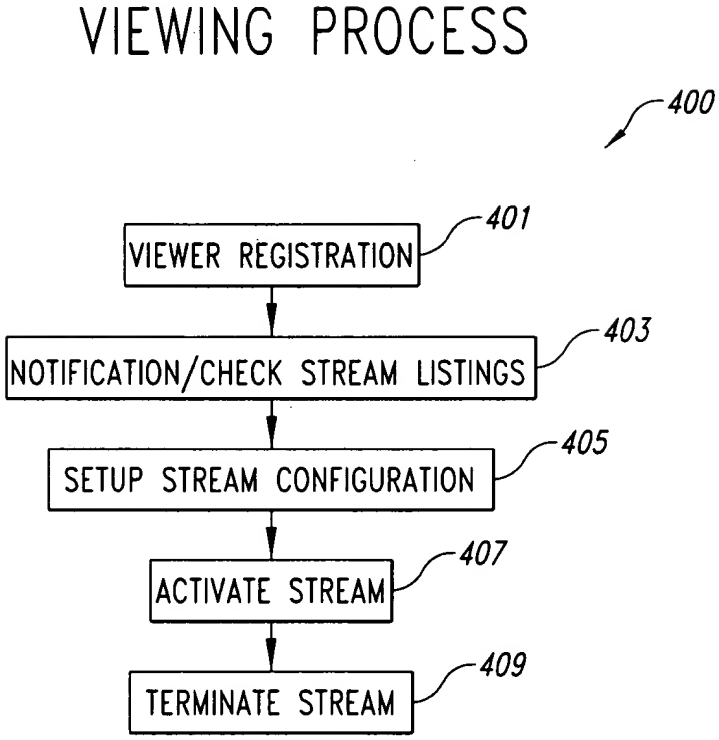
VIEWING PROCESS
400
VIEWER REGISTRATION
401
NOTIFICATION/CHECK STREAM LISTINGS
403
SETUP STREAM CONFIGURATION
405
ACTIVATE STREAM
407
TERMINATE STREAM
409

FIG. 4

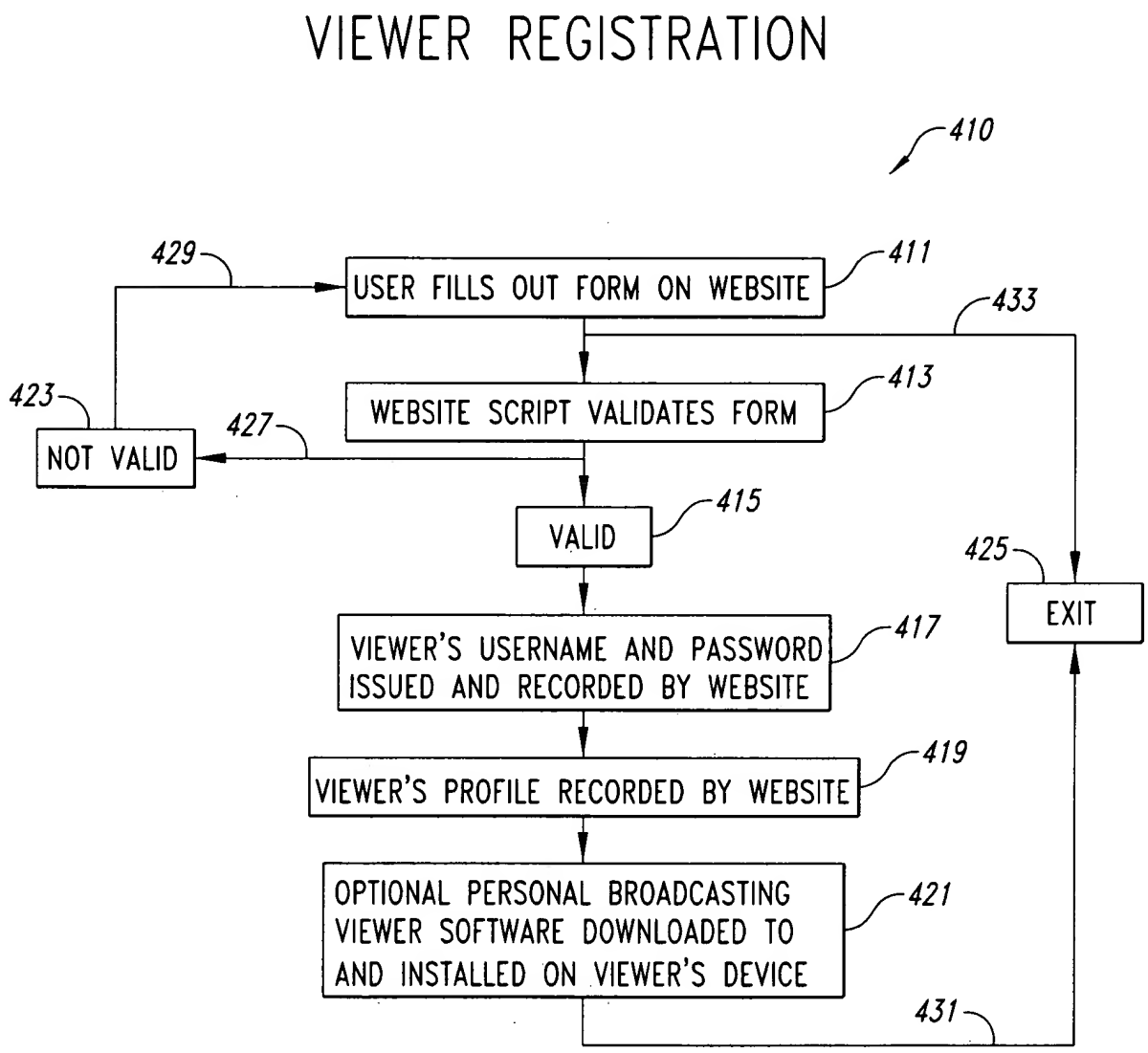
VIEWER REGISTRATION
410
429
USER FILLS OUT FORM ON WEBSITE
411
433
423
WEBSITE SCRIPT VALIDATES FORM
413
427
NOT VALID
415
VALID
425
EXIT
VIEWER'S USERNAME AND PASSWORD ISSUED AND RECORDED BY WEBSITE
417
VIEWER'S PROFILE RECORDED BY WEBSITE
419
OPTIONAL PERSONAL BROADCASTING VIEWER SOFTWARE DOWNLOADED TO AND INSTALLED ON VIEWER'S DEVICE
421
431

FIG. 4A

SETUP STREAM CONFIGURATION

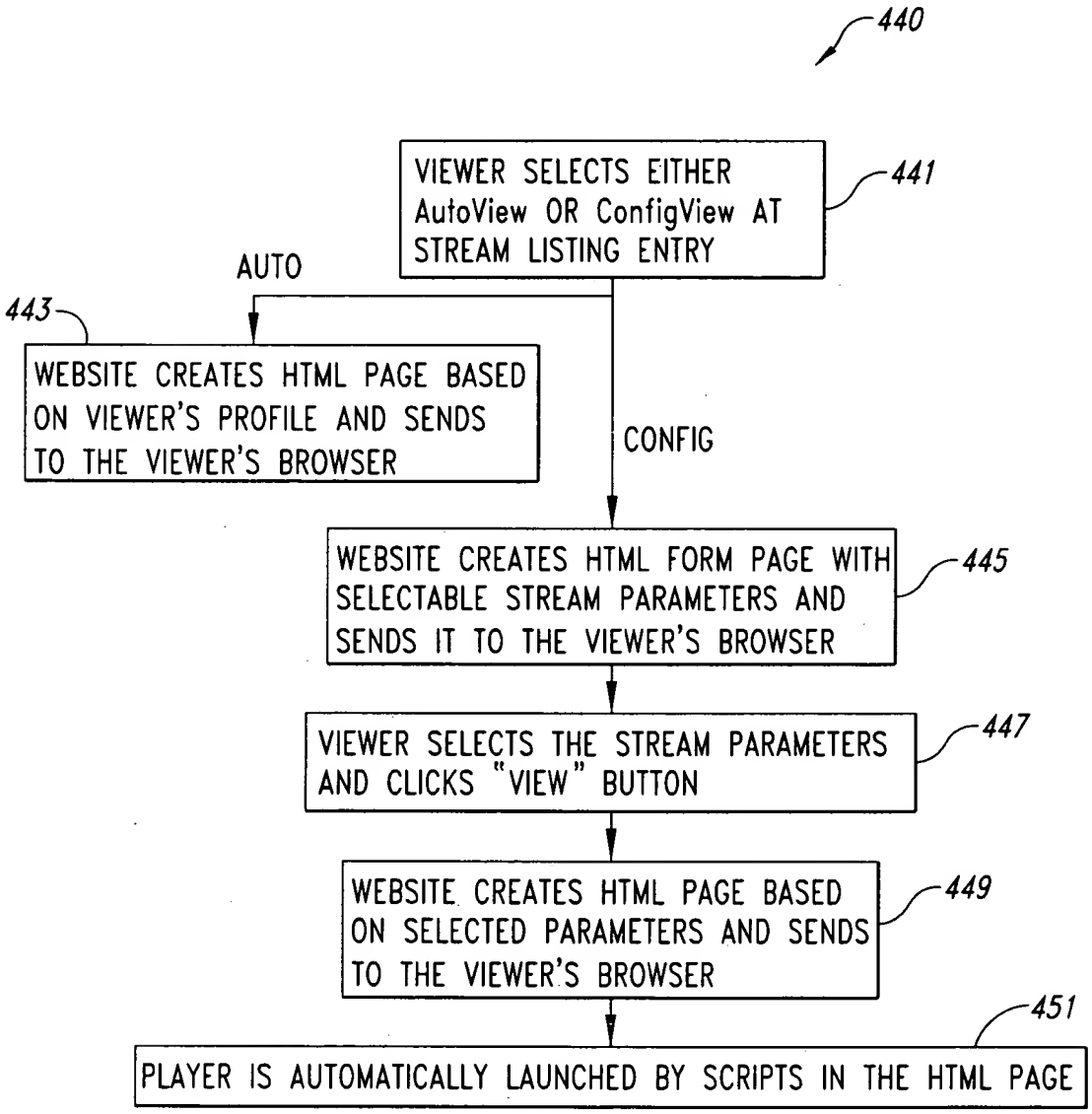

FIG. 4B

Mapping:

500

Resolution = Desplay

Player	ProtocolType
LuxPlayer	RTP
Others	TCP

501

DeviceType	ColorDepth
CellPhone	1bit
PDA	2bit
WinCE	4bit
PC	24bits

502

QoS Bandwidth	FrameRate
14.4kbps	1fps
28.8kbps	2fps
33.6kbps	4fps
128kbps	8fps
324kbps	15fps
>324kbps	30fps

503

Player	ColorDepth	Processor	StreamFormat
Browser	1bit, 2bits	ANY	MotionGIF
Browser	>2bits	ANY	MotionJPEG
ANY	1bit, 2bits	<266MHz	MotionGIF
ANY	>2bits	<266MHz	MotionJPEG
Otherwise			MPEG/MP3 audio

504

FIG. 5

Client Mobile Device Capability:

DeviceType	Processor	OS	Player	Display	Bandwidth
PDA	16bit	PalmOS	Browser (no javascript) (no audio)	160x120	14kbps

Map to internal structure:

StreamFormat	Resolution	ColorDepth	FrameRate	ProtocolType
MotionGIF	160x120	2bit	1fps	TCP

FIG. 6

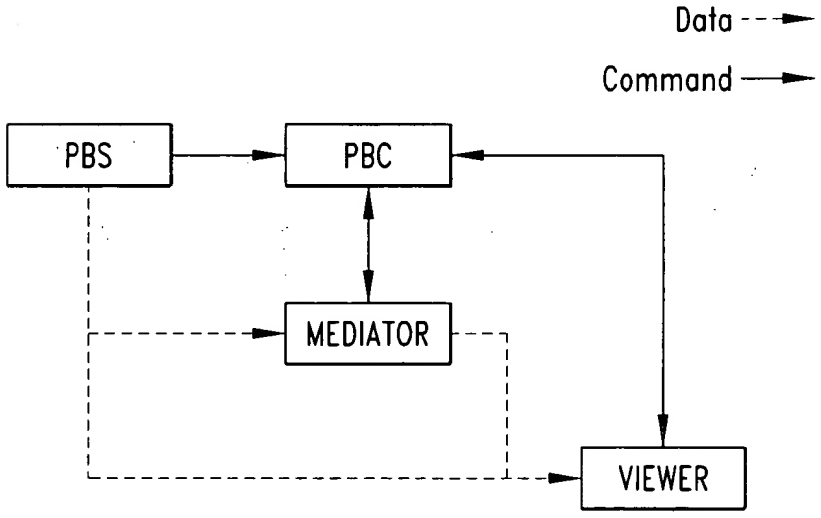

FIG. 7

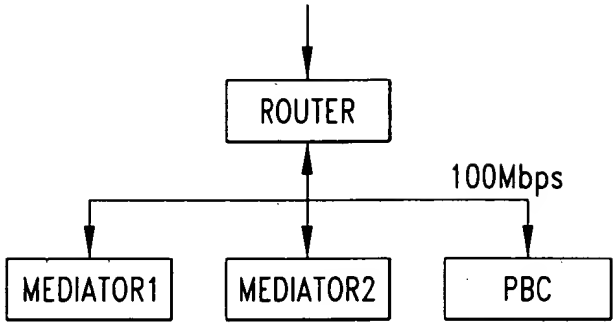
ROUTER
100Mbps
MEDIATOR1
MEDIATOR2
PBC

FIG. 8

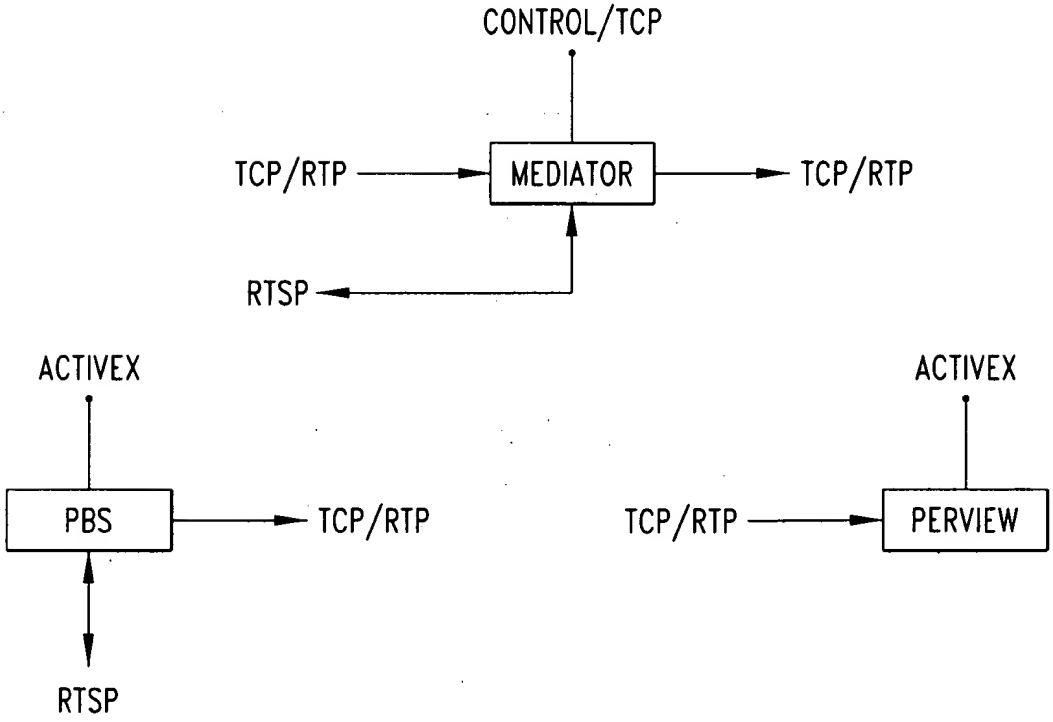
CONTROL/TCP
TCP/RTP
MEDIATOR
TCP/RTP
RTSP
ACTIVEX
PBS
TCP/RTP
RTSP
ACTIVEX
TCP/RTP
PERVIEW

FIG. 9